

Title (en)

METHOD OF CONTROLLING A COMBUSTOR

Title (de)

VERFAHREN ZUR STEUERUNG EINER BRENNKAMMER

Title (fr)

PROCÉDÉ DE COMMANDE D'UNE CHAMBRE DE COMBUSTION

Publication

**EP 4232699 A1 20230830 (EN)**

Application

**EP 21824501 A 20211126**

Priority

- GB 202018928 A 20201201
- EP 2021083221 W 20211126

Abstract (en)

[origin: WO2022117465A1] A method of controlling a combustor of a gas turbine engine, the method comprising the steps supplying a total fuel quantity to the combustor dependent on a load of the gas turbine engine, the total fuel quantity is split into a pilot fuel quantity and a main fuel quantity via a scheduled pilot fuel split, the pilot fuel split is the percentage of the pilot fuel quantity of the total fuel quantity, monitoring combustion instability, applying a steady state active pilot split offset to the scheduled pilot fuel split when a predetermined temperature of the combustor is exceeded and/or a predetermined value of combustion instability is exceeded to create a steady state pilot fuel split, monitoring a condition of the gas turbine engine that influences an air / fuel ratio in the combustor, disabling the steady state active pilot split offset when the condition of the gas turbine engine is indicative of a transient condition and when a threshold value of combustion instability is exceeded, and applying a transient active pilot split offset to the steady state pilot fuel split while maintaining the total fuel quantity being supplied at any point in time, the transient active pilot split offset and the steady state active pilot split offset result in a total split offset, the total split offset being greater than the steady state active pilot split offset and the rate of change of the transient active pilot split offset is faster than the rate of change of the steady state active pilot split offset.

IPC 8 full level

**F02C 7/228** (2006.01); **F02C 9/28** (2006.01); **F23R 3/34** (2006.01)

CPC (source: EP GB US)

**F02C 7/228** (2013.01 - EP US); **F02C 9/28** (2013.01 - EP GB US); **F02C 9/34** (2013.01 - GB); **F23R 3/343** (2013.01 - EP GB); **F23R 3/346** (2013.01 - GB); **F05D 2240/35** (2013.01 - US); **F05D 2270/08** (2013.01 - EP); **F05D 2270/095** (2013.01 - US); **F05D 2270/14** (2013.01 - EP); **F05D 2270/31** (2013.01 - EP US)

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DOCDB simple family (publication)

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